

01.01 - 05/09/94-00433



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION III

841 Chestnut Building
Philadelphia, Pennsylvania 19107Office of Superfund
Robert Thomson, P.E.
Mail Code 3HW71Direct Dial (215) 597-1110
FAX (215) 597-9890

Date: May 9, 1994

Ms. Brenda Norton, PE
Atlantic Division, Naval Facilities Engineering Command
Environmental Quality Division
Code: 1822
Building N 26, Room 54
1510 Gilbert Street
Norfolk, Va 23511-2699Re: Naval Weapons Station, Yorktown, Va.
Master Project Plans
Review of draft *Site Screening Process Guidelines*

Dear Ms. Norton:

The U.S. Environmental Protection Agency (EPA) has reviewed the Navy's draft *Site Screening Process Guidelines* for the investigation of identified Site Screening Areas at the Naval Weapons Station - Yorktown NPL site (WPNSTA), and we offer the following comments and concerns:

Specific Comments1) Section 2.0, page 1

The review of historical information should include an earnest attempt to obtain all available historical photography, including aerial photos, of the Naval Weapons Station.

2) Section 3.0, page 2, 2nd paragraph

The last sentence should be modified as follows: "*Because this type of groundwater...in the groundwater, all groundwater samples will be analyzed for both filtered and unfiltered metals.*"

3) Section 5.1, page 3

The selection of chemicals of concern should follow the procedures provided in the Region III guidance document entitled "*Selection of Contaminants of Concern by Risk-based Screening*" (SCCRBS), utilizing the associated SCCRBS tables developed by using a systemic hazard quotient of 0.1 or a lifetime cancer risk of 10^{-4} . Updated RfDs can be obtained from newer versions of Region III's *Risk Based Concentration values* and utilized in the process outlined in the SCCRBS guidance to calculate updated SCCRBS table values for selected chemicals. By utilizing the SCCRBS tables, all chemicals detected which exceed the SCCRBS table values should be retained initially as chemicals of concern. All chemical concentrations falling below the SCCRBS table values can be eliminated from further concern, unless the individual chemical presents a unique concern to ecologists.

Once the initial screening is accomplished utilizing Region III's SCCRBS guidance, a second tier of screening can be performed on the remaining chemicals of concern if desired. The second tier of

screening should most likely involve the general process outlined in Sections 5.2, 5.3, and 5.4. The use of this two-tiered screening process allows for the quick elimination of detected chemicals from further analyses which fall below the SCCRBS table values, thus allowing for a smaller number of chemicals that need to be carried through the "number crunching" process as found in Sections 5.2 through 5.4. Additionally, the use of the SCCRBS guidance circumvents the issue of establishing adequate background for the first tier of determining chemicals of concern.

4) Section 5.1, page 3

The selection of chemicals of concern utilizing a detection frequency methodology is not recommended. Chemicals eliminated from the risk assessment based upon a frequency of less than 5% should not be site-related, be a degradation product of a site-related contaminant, have fate and transport properties that will lead to contamination of other media, be present as a hot spot, or be present at a hazardous level.

5) Section 5.1, page 3

Sufficient data should be available before contaminants are eliminated based upon "background" conditions.

6) Section 5.1, page 3

Please be aware that both filtered and unfiltered metals analysis are required.

7) Section 5.2, page 4

Please note that an additive risk characterization will be required, and the final SSA guidance document should outline the general methodology for accomplishing such.

8) Section 5.2, page 4, 3rd paragraph

Please note that the report entitled "*Focused Biological Sampling and Preliminary Risk Evaluation*" has not addressed EPA's concerns and comments as previously submitted. Therefore, EPA does not readily accept the conclusions contained in the report. EPA recommends that the *Site Screening Process Guidelines* contain a section which describes the general procedures for addressing fish ingestion scenarios.

9) Section 5.2, page 4, 4th paragraph

Risk-based concentration should be developed for the water and soil dermal contact pathways for all contaminants which have available appropriate toxicity information and exposure parameters (e.g., absorption factors). Please refer to EPA's Dermal Guidance (EPA. 1/1992).

10) Section 5.5, page 7

Please include the enclosed Region III guidance on the performance of a Monte Carlo simulation in the draft final *Site Screening Process Guidelines*.

11) Section 6.0, page 7

Please modify this section to address the above comments, including the use of the two-tiered screening process. The Decision Document should also contain a detailed compilation of site-related history, maps, and aerial photography if available.

12) Section 7.0, page 8

Please modify this section to address the above comments, including the use of the two-tiered screening process.

This concludes EPA's comments on the Navy's draft *Site Screening Process Guidelines* for the investigation of identified Site Screening Areas at the WPNSTA. If you have any questions concerning the above, please feel free to call me at (215) 597-1110,

Sincerely,



Robert Thomson, PE
VA/WV Superfund Federal Facilities (3HW71)

cc: Lisa Ellis (VDEQ, Richmond)
Jennifer Loftin (WPNSTA, Code 09E)
Andy Rola (B&VWST, Phila.)
Nancy Rios (USEPA, 3HW13)
Bruce Rundell (USEPA, 3HW13)